## ABSTRACT OF THE DISCLOSURE

The invention relates to methods for producing recombinant human zona pellucida protein ("rhZP3") and glycosylated peptide having biological activity of binding to human spermatozoa. A human ovarian cell line is used to produce rhZP3 having a glycosylation pattern required for full biological activity. Methods of determining useful peptides with binding activity for human sperm and their syntheses, as well as using such peptides and proteins in therapeutics and diagnostics are discussed.